

REMARKS

Claims 1 – 11 and 13 - 22 are pending in the application.

I. Telephone discussion with the Examiner.

Applicants respectfully thank the Examiner for discussing this case by telephone on March 25, 2009. As discussed, Applicants understand that the Examiner will need to conduct a new search regarding the amended claims. Applicants also note that an alternative apparatus claim has been added that does not include “means for” language, as respectfully suggested by the Examiner.

II. The specification is respectfully amended.

In addition to the amendments discussed below, Applicant has amended the specification at pages 1, 5 and 8 to correct a translation error from the original Japanese in which “SCARA” was translated to “scalar”. Applicant has also added the common definition of the acronym SCARA, a definition well know to a person of ordinary skill in the art (see, e.g., Wikipedia entry about SCARA at en.wikipedia.org/wiki/SCARA), to the first use of “SCARA” in the specification only to make the specification more readable. No new matter has been added.

III. Objection to the Specification

Applicants respectfully note that the abstract has been amended to correct the noted informalities. No new matter is added. Thus, it is respectfully asserted that the objection has been overcome.

IV. The anticipation rejections of claims 1, 4-7, 9-11, 13, 16-17, and 21 based on Watanabe (US 6,140,788), as noted on page 3 of the Office Action.

The USPTO respectfully rejects claims 1, 4-7, 9-11, 13, 16-17, and 21 were rejected under 35 USC 102(b) as being anticipated by Watanabe. Claims 1 and 13 are independent claims.

A. Watanabe does not disclose a virtual robot working environment, a virtual robot, a virtual working space, virtual obstacles, or task simulation, as claimed in claims 1 and 13.

Claim 1 claims in relevant part:

“an environment defining (“ED”) means for providing a virtual robot working environment in which a virtual robot works in a virtual working space where virtual obstacles are disposed, said virtual robot having a task of transferring a virtual object from a start point to a goal point, said ED means including a path determining means for determining a path of travel of said virtual object associated with said task of said virtual robot by designating via-points between said start point and said goal point; and

a task simulation executing and displaying (“TSED”) means responsive to said ED means and said path determining means for executing simulation of said task of said virtual robot and displaying said executed simulation on a display; said TSED means including;” (emphasis added)

Claim 13 claims similar limitations in method form. No new matter is added by the amendments. Support for the amendments is found on pages 7-13 of the present specification. Regarding these limitations, it is respectfully not seen where Watanabe discloses the claimed structure quoted above.

Applicants respectfully assert that Watanabe does not disclose at all anything relating to a virtual robot, a virtual robot working environment, or virtual obstacles, as claimed in claims 1 and 13. Instead, Watanabe only relates to real robots and not virtual robots (see robot 30 in Figure 3A of Watanabe, for example).

This distinction is important and non-trivial because it results in significant advantages over conventional systems and methods. For example, the claimed structure and method of claims 1 and 13 allows for the testing and evaluation of robot movements without risk of damage to actual materials or devices. If similar testing were done using real robots, then there would be a significant risk of damage caused by collisions. Thus, the specifically claimed system and method of claims 1 and 13 can achieve cost savings when designing robot movements and procedures. Additionally, the system and method of claims 1 and 13 allows for selecting a suitable size of a robot and working space (see also pages 2 and 13-14 of the present specification).

Thus, it is respectfully asserted that Watanabe does not disclose all of the limitations of independent claims 1 and 13. Therefore, it is respectfully asserted that Watanabe does not anticipate claims 1 and 13.

B. The dependent claims.

As noted above, it is respectfully asserted that independent claims 1 and 13 are allowable, and therefore it is further respectfully asserted that dependent claims 4-7, 9-11, 16-17, and 21 are also allowable.

V. The obviousness rejections of claims 2-3 and 14-15 based on Watanabe in view of Ohta (US 2005/0096136), as noted on page 6 of the Office Action.

As noted above, it is respectfully asserted that independent claims 1 and 13 are allowable, and it is further respectfully asserted that Ohta does not overcome the deficiencies in Watanabe noted above in Section III regarding independent claims 1 and 13. Therefore, it is further respectfully asserted that dependent claims 2-3 and 14-15 are also allowable.

VI. The obviousness rejections of claims 8 and 20 based on Watanabe in view of Rosenberg (US 6,028,593), as noted on page 7 of the Office Action.

As noted above, it is respectfully asserted that independent claims 1 and 13 are allowable, and it is further respectfully asserted that Rosenberg does not overcome the deficiencies in Watanabe noted above in Section III regarding independent claims 1 and 13. Therefore, it is further respectfully asserted that dependent claims 8 and 20 are also allowable.

VII. New claim 22.

Applicants respectfully note that new claim 22 is added. No new matter is added by the amendments. Support for the amendments is found in present Figure 1 and on pages 7-13 of the present specification.

VIII. Conclusion.

Reconsideration and allowance of pending claims 1 -11 and 13 – 21 is respectfully requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130.

Please contact the undersigned for any reason. Applicant seeks to cooperate with the Examiner including via telephone if convenient for the Examiner.

Respectfully submitted,

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